

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016404**Date Inspected:** 23-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Jim Cunningham and William Sherwood			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Orthotropic Box Girder		

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 5W/6W side plate 'E' inside, ABF welder Songtao, Huang was noted preparing his welding equipment and other accessories to perform welding in this location. At first, the welder was noted lining up his Bug-o track for the Flux Cored Arc Welding (FCAW-G) welding then afterwards, he was noted installing the heater blankets for the Miller Proheat 35 Induction Heating System from the outside. While the welder was at the outside installing the blankets, this QA performed fit up verification on the splice joint. During the verification, it was noted that on two locations there were misalignment reading of more than 3.0mm and on one location there was a reading of more than 4.0mm misalignment. QA informed ABF QC William Sherwood about the unacceptable misalignments and QC confirmed them. QC has acknowledged the misalignment readings and instructed the fit up crew to fix the alignment in question. The fit-up crew was noted hammering the rod inserts from the outside where the misalignment was observed. At the same time, ABF QC was also checking the alignment from the inside. After hammering on the insert rods where the affected areas were located, the alignment of the splice butt joint has come to acceptable level.

At OBG 1W side plate 'C' and 'E' outside, QA randomly observed ABF welder Rick Clayborn continuing to perform fillet and partial joint penetration (PJP) welding in 2F/2G position using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode. The welder was welding on 2 1/4" wide x 3/8" thick drip plate to the side plate of the OBG at panel point PP8 to PP11. The drip plate and the surface of the side plate (where the

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drip plate was welded) were noted ground and the paint coating removed. ABF QC Jim Cunningham was noted monitoring the welding and its parameters. At the end of the shift, fillet and PJP welding were still continuing and should remain tomorrow.

At OBG 4W/5W edge plate 'B' outside/inside, QA noted ABF welder Kenneth Chappell excavating welding (UT) repairs on the welded splice butt joint. The welder was seen excavating a repair from the outside and after its completion, the welder has moved to the inside of same OBG splice plate and also excavated one repair. Both repairs were excavated using a die grinder with a barrel bit and have a boat shape profile. After the completion of the grinding, the welder has turned them over to another welder Fred Kaddu. Fred Kaddu was noted preparing his SMAW welding machine and cables but was not able to start welding due to time constraint.

At OBG 5W/6W side plate 'E' outside, ABF welder Songran Huang and company were noted installing the heater blankets of the Miller Proheat 35 Induction Heating System from the outside but will perform the 3G FCAW-G welding from the inside.



At OBG 5W/6W side plate 'E' inside, fit-up misalignment of 4.0mm was noted during the QA verification. QC acknowledged the misalignment and instructed the fit-up crew to fix the unacceptable high/low.

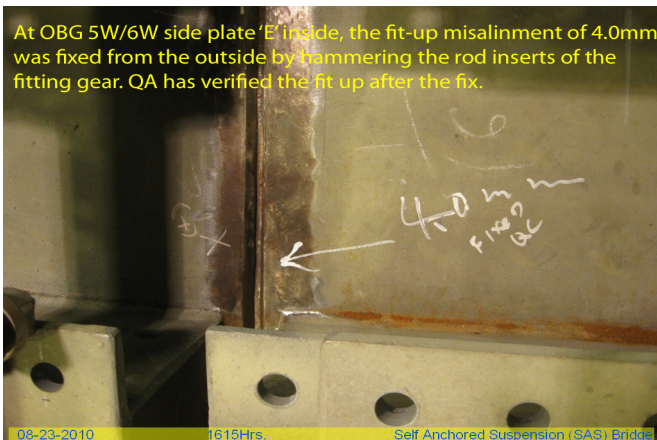


Summary of Conversations:

At OBG 5W/6W side plate 'E' inside, ABF QC William Sherwood has confirmed the existence of fit-up misalignment of the splice joint. He then instructed the fit-up crew to fix the unacceptable misalignment. Later, the fit-up crew was noted hammering the rod inserts of the fitting gears to make the adjustments. QC has re-measured the high/low and has come to acceptable level. QA has also verified the alignment after the adjustment.

All that was performed today by the welder was preparation. Per QC, the welder intends to start welding on this splice joint by tomorrow.

At OBG 5W/6W side plate 'E' inside, the fit-up misalignment of 4.0mm was fixed from the outside by hammering the rod inserts of the fitting gear. QA has verified the fit up after the fix.



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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito
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Quality Assurance Inspector

Reviewed By:	Levell, Bill
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QA Reviewer
